

constantly endeavored to render it of practical service to the people of his state. For several years, during the chinch bug invasion of Kansas, he labored heroically to aid the farmers in their extremity. However much question there may be regarding the practical effects of his labors there can be none concerning his devotion and singleness of purpose toward the cause of those into whose service he thus entered. Many are firm in their belief of personal indebtedness to Doctor Snow for his assistance in their time of trouble.

Much more might be said of this excellent man, but it would all be of the same kind and tenor. He was one of Nature's noblemen—earnest, sincere and devoted; full of optimism, good cheer and courage. He lived a life of simple earnestness and hundreds of devoted students have felt and acknowledged its influence for good. The University of Kansas honored itself by formal memorial services devoted to his memory on November 10, at which time his old friends and students spoke most appreciatively of his services to science and to the state.

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Two new species of the genus *Phthiracarus*.

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The genus *Phthiracarus* is one of the two genera which compose the subfamily Hoplodermiinae, of the family Oribatidae. The members of the subfamily Hoplodermiinae are remarkable in that the cephalothorax is hinged to the abdomen and is capable of being folded down upon the ventral surface of the latter in such a way as to completely cover and conceal the legs and mouth parts. This arrangement enables these small Acarina to successfully protect themselves from many of their small predaceous enemies. Up to the present time only four species of the genus *Phthiracarus* have been recorded from North America, the two described in this article making six known to this country. The writer is indebted to Mr. H. Glasgow for the collecting of one of the species.

Phthiracarus flavus n. sp.

Light yellow, darker parts light yellowish brown; integument of cephalothorax and abdomen pitted.

Cephalothorax one-half as long as abdomen and twice as long as high, rounded in front. The cephalothorax bears three pairs of prominent bristles; anterior pair about two-thirds as long as the cephalothorax is high; middle pair, which is situated at about the middle of the dorsal surface of the cephalothorax, slightly larger; posterior pair, which is situated above the pseudostigmata, two-thirds as long as the cephalothorax. Pseudostigmata situated approximate to the posterior ventral surface of the cephalothorax, oval in shape; pseudostigmatic organ two-thirds as long as the posterior pair of bristles; without head, but slightly pectinate towards the distal end. Mouth parts large, stout, and prominent. There is a very slight ridge running forwards from the pseudostigmata to the anterior margin of the cephalothorax.

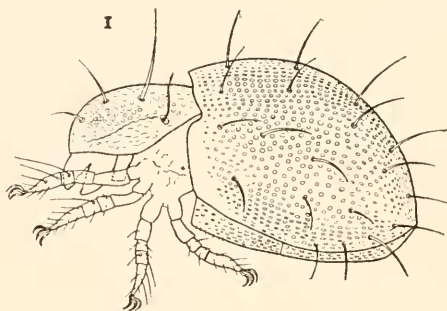


Fig. 1.—*Phthiracarus flavus* n. sp., side view, x 80.

Abdomen pointed behind; ventral margin strongly convex, anterior margin with a deep notch to allow room for the pseudostigmata and pseudostigmatic organs. The abdomen is deeply pitted; pits of about the same size and arranged in longitudinal rows. Abdomen with at least nineteen pairs of prominent bristles above; a row of five bristles on either side of the median plane; another row of five bristles just below this row on either side of the abdomen; a pair of bristles just posterior to the notch in the anterior margin of the abdomen; a similar pair situated about their length posterior to this pair; a pair situated about one-half the distance from the anterior to the posterior end of the abdomen and their length above the ventral margin of the same; three pairs of bristles situated towards the ventral margin of dorsum, and three pairs on the posterior ventral margin. The genital and anal covers together extend almost the entire length of the abdomen; inner margin of genital covers straight; inner margin of anal

covers slightly convex, genital covers each with a few very minute hairs.

Anterior pair of legs equal in length to the cephalothorax, somewhat stouter than the others; tarsus of leg I fully one and one-half times as long as the tibia. All the legs are well clothed with rather long, simple bristles. Unguis tridactyle. Length, 0.78 mm; height, 0.42 mm.

In moss. Collected by H. Glasgow at Urbana, Illinois. One specimen.

Phithiracarus rotundus n. sp.

Brown; integument granulate. Cephalothorax, fully one-half as long as the abdomen and about one-half as high as long. There is a small chitinous ridge around the ventral edge of the cephalothorax; this ridge projects forwards and laterally about as far as the width of one of the dactyles of tarsus I. The cephalothorax bears two pairs of very fine hairs, those of the anterior pair being shorter than those of

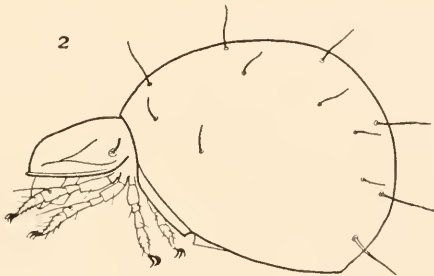


Fig. 2.—*Phithiracarus rotundus* n. sp., side view, x 80.

the posterior pair. Pseudostigmata round, disk-like; in diameter each equal to the width of tibia I; pseudostigmatic organ about twice as long as the diameter of the pseudostigma. Palpi very prominent.

Abdomen almost as high as long; the upper half of the anterior margin concave, the lower half of the anterior margin straight. The posterior part of the abdomen is rounded; ventral margin of abdomen convex. The abdomen bears about twelve pairs of small hairs on the dorsal aspect.

Legs about as long as cephalothorax; all subequal; tarsus longer than tibia; unguis large and stout, almost as long as the tarsus, from which it extends, and tridactyle, dactyles equal. Length, 0.76 mm; height, 0.52 mm.

Under a log. Collected by the writer near Batavia, Ill.